War Atlas and Short-Wave Radio Log

Names and Dial Readings of Short-Wave Stations in Europe's Capitals

The following stations may be heard at various times during the day. Generally speaking, stations from 9 MC to 12 MC are best heard in the afternoon and at night and those from 15 MC and up in the morning hours.

LONDON, ENGLAND

Call Letters	Megacycles	Call Letters	Megacycles
GSB	9.51	GSO	15.18
GSC	9.58	GSI	15.26
GRY	9.60	GSP	15.31
GRX	9.69	GSG	17.79
GSD	11.75	GSV	17.81
GSN	11.82	GSH	21.47
GSE	11.86	GSJ	21.53
GSF	15.14	GST	21.55

PARIS, FRANCE

Call Letters	Megacycles	Call Letters	Megacycles
TPA4	11.72	TPA2	15.24
TPA3	11.88	TPB3	17.85
TPB6	15.13		

ROME, ITALY

Call Letters	Megacycles	Call Letters	Megacycles
I2RO3	9.63	IQA	14.79
I2RO9	9.67	I2RO14	15.23
IRF	9.83	I2RO6	15.30
IQY	11.67	I2RO8	17.82
I2RO4	11.81		

BERLIN, GERMANY

Call Letters	Megacycles	Call Letters	Megacycles
DJN	9.54	DJL	15.11
DJA	9.56	DJB	15.20
DJX	9.67	DJQ	15.28
DJD	11.77	DJR	15.34
DJO	11.80	DJE	17.76
DJP	11.85	DJS	21.45

Radio today is something more than a pleasant, entertaining companion. The march of world events has made it the vital LISTENING POST OF THE EMPIRE! Every Canadian knows that radio is the sentry that never sleeps, and the precious medium through which the Empire stands mobilized for instant communication.

Play your part in these stirring times! Only with a modern short-wave radio can you keep instantly informed of events *as they happen* — and thus BE PREPARED to "do your bit."

WAR MAPS INSIDE

WORLD DIFFERENCES IN TIME

The illustrations above show the time in various capitals of Europe when it is 12 o'clock Eastern Standard Time in Montreal. Add one hour for Central, 2 hours for Mountain and 3 hours for Pacific Coast Standard Time.

See the New **1940 PHILCO SHORT-WAVE RADIOS!**

BOWMAN BROTHERS LIMITED

SASKATOON - REGINA - YORKTON
NORTH BATTLEFORD - PRINCE ALBERT
SWIFT CURRENT - MOOSE JAW
SASKATCHEWAN

SEE YOUR PHILCO DEALER

ENGLAND

Area—94,278 square miles.
(Of entire British Empire—13,253,240 square miles).
Population—46,189,176.
(Of entire British Empire—494,870,104).
Army—Actives, 700,000.
Reserves, 800,000 men available within two to six months.
Maximum military strength—5,000,000 men.
Maximum from entire Empire—25,000,000 men.
Navy—1,500,000 tons at present.
700,000 tons building.
Present strength:
15 battleships.
9 aircraft carriers.
63 cruisers.
178 destroyers.
73 submarines.
(plus mine-layers, gunboats, auxiliary vessels).
Air Force—3500 first-line planes.
2500 reserve planes.
6000 total planes.
Wartime production rate: 1200 a month.

Resources

Britain's industrial capacity is the highest in Europe, both in light and heavy industries. With her factories fed by raw materials from her world-wide Empire, the Mother Country with her traditional ally, France, is in a far better position to fight a long war than is Germany. Most of Britain's supplies, except for coal, must come from overseas, but the Anglo-French battle fleet towers so greatly in strength over that of Germany that Hitler could not bottle up the sea lanes and close off Britain's source of supply.

Britain, traditionally a naval power, until a few months ago had no conscription law and possessed but a skeleton army. A tremendous expeditionary land force was swiftly mobilized following the declaration of war and is now active on the Western Front.

"London Calling..!"

The news of the day direct from the Heart of Empire . . . hear it by short-wave direct. Many times a day London directs its powerful short-wave stations to Canada. And Philco's new 1940 developments have vastly improved your opportunity to hear them, direct in your home.

PHILCO 16T

All the power and performance you need for short-wave world-wide reception . . . yours at an amazing low price. Has Philco's new Built-in Super Aerial System with special built-in short-wave aerial. No installation required.

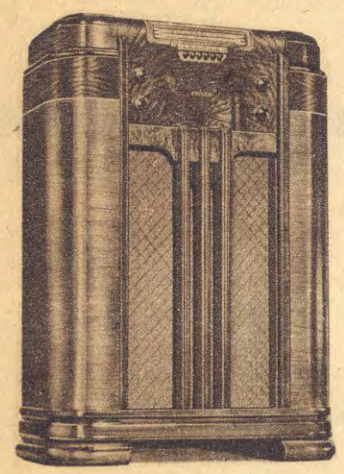
FRANCE

Area—212,659 square miles (with colonies, 4,825,974 square miles).
Population—42,014,594 (with native populations in colonies, 111,091,221).
Army—Actives, 2,500,000.
Reserves, 2,500,000 men available within two to six months.
Maximum military strength—8,000,000 men, including colonies.
Navy—550,000 tons at present.
280,000 tons building.
Present strength:
7 battleships.
2 aircraft carriers.
18 cruisers.
71 destroyers.
76 submarines.
(plus mine-layers, gunboats, auxiliary vessels).
Air Force—2000 first-line planes.
1000 reserve planes.
3000 total planes.
Wartime production rate: 750 a month.

Resources

France and her colonies grow all the food she needs, and the country is rich in minerals. Her gold supply is the third largest in the world. She has much coal and iron, and her industry is highly developed. Allied control of the sea will enable her to bring from abroad all supplies, such as oil, which she must import. France's army is rated by military men as the best in the world, despite German claims of superiority in the air.

"COMMUNIQUE..!"



The latest bulletins, the official government reports, right up to the minute from the capital of France . . . hear them direct by short-wave! With the increased power of many short-wave stations, Philco's 1940 inventions make foreign reception available to many localities that have never enjoyed it before.

PHILCO 23K

Finest-performing console ever offered at so low a price! Includes Philco's famous Built-in Super Aerial System with Twin-Loop short-wave aerials for world-wide reception. Plug in anywhere and play. Concert Grand Speaker, Electric Push-Button Tuning, easy-to-read Horizontal Dial. Handsome walnut cabinet.

EUROPE

War Fortifications and Boundaries

- MAGINOT LINE
- SIEGFRIED LINE
- GERMAN NAVAL DISPOSITION
- FORTIFIED AREA
- PRINCIPAL NAVAL BASES
- INDUSTRIAL AREA
- BRITISH-FRENCH NAVAL BLOCKADE
- IRON ORE MINES
- LIGHT FORTIFICATIONS
- HEAVY FORTIFICATIONS
- FORTIFICATIONS OF NEUTRALS

ORKNEY IS.
Scapa Flow
SCOTLAND
GLASGOW
Rosyth
EDINBURGH
Belfast
EIRE
Dublin
IRISH SEA
NORTH SEA
Manchester
Liverpool
Hull
Birmingham
Norwich
Milford Haven
ENGLAND
LONDON
Harwich
PLYMOUTH
WEYMOUTH
Southampton
Portsmouth
Dover
Rotterdam
HOLLAND
Dutch Can Flood Area
Antwerp
BRUSSELS
Dunkerque
BELGIUM
Cherbourg
Le Havre
Brest
Maubeuge
Rouen
Liege
Namur
PARIS
LUXEMBOURG
Verdun
Metz
Nancy
Nantes
Le Mans
Orleans
Tours
Strasbourg
FRANCE
Belfort
Dijon
Basle
Berne
SWITZERLAND
Geneva
Lyon
BAY OF BISCAY
BORDEAUX
Coruna
Bilbao
Biarritz
San Sebastian
Toulouse
Oporto
PORTUGAL
Medina Del Campo
Saragossa
LISBON
MADRID
SPAIN
Lerida
BARCELONA
Tarragona
Marseille
Toulon
Spezia
Leghorn
CORSICA
FRANCE
Ajaccio
La Maddalena
SARDINIA
ITALY
Cagliari
BALEARIC IS
SPAIN
Valencia
Seville
Cadiz
Granada
Murcia
Algeciras
GIBRALTAR
BRITAIN
Almeria
Cartagena
Ceuta
MEDITERRANEAN SEA
Mers-el-Kebir
Algiers
FR. MOROCCO
ALGERIA
TUNISIA
Bizerte
TUNIS
Pantelleria
ITALY
Castellammare
Messina
SICILY
(ITALY)
Malta
BRITAIN
IONIAN SEA
TYRRHENIAN SEA
ROME
Naples
Bari
Brindisi
Taranto
CORFU
BRITAIN
Split
Sibenik
Catania
ADRIATIC SEA
Venice
Trieste
Bologna
Florence
Genoa
TURIN
MILAN
Sava R.
Drava R.
BELGRADE
JUGOSLAVIA
BUCHAREST
Danube River
HUNGARY
Sopron
BUDAPEST
Graz
Oradea
RUMANIA
Uzhorod
CARPATHIAN MTS.
Bratislava
VIENNA
MUNICH
Innsbruck
Brenner Pass
Linz
Danube
PRAGUE
Karlsruhe
Nuremberg
Frankfort-on-Main
Chemnitz
Dresden
Leipzig
Gorlitz
Breslau
Gleiwitz
Katowice
Radomsk
Czestochowa
Lublin
(Former Status)
Krakow
Jablunka Pass
Dukla Pass
Lwow
Brest Litovsk
PRIPET MARSHES
WARSAW
POLAND
Bydgoszcz
Vistula R.
LODZ
Mlawa
Bialystok
Grudziadz
Thorn
POMERANIA
Naklo
POSEN
Posen
Stettin
Hanover
Bremen
Hamburg
BERLIN
FRANKFORT
Dessau
Magdeburg
Kassel
Dusseldorf
Cologne
Aachen
Liege
Namur
Kiel Canal
KIEL
HELGOLAND
GERMANY
Wilhelmshaven
DENMARK
Gdynia
DANZIG
Koenigsberg
EAST PRUSSIA
Elbing
Memel
LITHUANIA
KAUNAS
Vilna
LATVIA
RIGA
BALTIC SEA
Aland Is.
(Finland)
UNDER CONSTRUCTION
STOCKHOLM
SWEDEN
KATTEGAT
SKAGERRAK
OSLO
NORWAY
REVAL
ESTONIA
GULF OF FINLAND
HELSINGFORS
FINLAND
LADOGA
Canal
LENINGRAD
MOSCOW
SOVIET RUSSIA
WHITE RUSSIA
Minsk
KIEV
Dnepr River
UKRAINE
Odessa
CRIMEA
Sevastopol
BLACK SEA
SEA OF AZOV
Kharkov
Stalino
Rostov
Taganrog
Voronezh
Tula
Moscow
Gorki
Kazan
Kuibyshev
Saratov
Stalingrad
Astrakhan
Caspian Sea
Volga R.
Don R.
Dniepr R.
Pripet R.
Vistula R.
Oder R.
Elbe R.
Rhine R.
Po R.
Rhone R.
Tagus R.
Ebro R.
Douro R.
Guadalquivir R.
Guadiana R.
Tiber R.
Arno R.
Seine R.
Loire R.
Garonne R.
Dvina R.
Niemen R.
Kama R.
Ural R.
Ural Mts.
Caucasus Mts.
Pyrenees Mts.
Alps Mts.
Carpathian Mts.
Apennines Mts.
Balkan Mts.
Dinaric Alps
Black Forest
Bohemian Forest
Erzgebirge
Harz Mts.
Thuringian Forest
Riesengebirge
Sudeten Mts.
Hartz Mts.
Cheviot Hills
Grampian Mts.
Pennine Chain
Cambrian Mts.
Scandinavian Mts.
Dovrefjeld
Jotunheim Mts.
Kjolen Mts.
Lofoten Is.
Faroe Is.
Shetland Is.
Orkney Is.
Hebrides
Isle of Man
Channel Is.
Balearic Is.
Corsica
Sardinia
Crete
Rhodes
Cyprus
Malta
Gibraltar
Azores
Canary Is.
Madeira Is.
Iceland
Spitsbergen
Franz Josef Land
Novaya Zemlya
Nova Zembla
Kara Sea
Barents Sea
White Sea
Gulf of Bothnia
Gulf of Finland
Gulf of Riga
Baltic Sea
North Sea
Irish Sea
Bay of Biscay
Atlantic Ocean
Mediterranean Sea
Black Sea
Sea of Azov
Caspian Sea
Aral Sea
Lake Ladoga
Lake Onega
Lake Peipus
Lake Ilmen
Lake Chudskoye
Lake Vanern
Lake Vattern
Lake Geneva
Lake Constance
Lake Balaton
Lake Neusiedler
Lake Trasimeno
Lake Como
Lake Maggiore
Lake Garda
Lake Lugano
Lake Iseo
Lake Orta
Lake Varese
Lake Bolsena
Lake Bracciano
Lake Albano
Lake Nemi
Lake Vico
Lake Trasimeno

GERMANY

Area—259,000 square miles.

Population—88,000,000.

Army—Actives, 2,000,000.
Reserves, 1,500,000 available within two to six months.
Estimated ultimate maximum—9,000,000.

Navy—219,000 tons at present.
282,000 tons building.
Present strength:
7 battleships.
8 cruisers.
44 destroyers.
50 submarines.
(No aircraft carriers at present; 2 under construction.)

Air Force—4000 first-line planes.
4000 reserve planes.
8000 total planes.
Wartime production rate, 1500 a month.

Germany has virtually no gold (her cover on note circulation is but 1.59 per cent), and lacks iron, oil and rubber, which are vital for quick replacement of planes, tanks and artillery lost in war. Loss of the Lorraine iron fields to France in 1919 was a blow to Germany's hopes of military self-sufficiency. She also needs fats and foods. In peacetime she must import wool, cotton, iron ore, oil, wheat, coffee, butter, fruit, coal, timber and copper ore, and the Allies' plans for winning the war include a naval blockade. Hitler hopes to get his supplies from Russia and his neighbors to the southeast, unaffected by the blockade. Above all, he hopes for a "Blitzkreig," since present reserves are only enough to keep Germany going for a short period.

EXPLORE THE WORLD!

Hear the news as fast as it happens with a 1940 Short-Wave Philco in your home. Powerful short-wave stations ask you to hear their news. And now, your opportunity to hear them is better than ever, thanks to the new inventions of Philco engineers.

PHILCO 17T. Powerful, big set performance in a handsome table model. Great efficiency, especially on world-wide short-wave reception. Has the exclusive Philco Built-in Super Aerial System with special built-in short-wave aerial. No installation needed.

Now —with Special Emphasis on Real Radio Values

WE STAGE A THRILLING PHILCO RADIO SHOW for you!

ON PARADE!

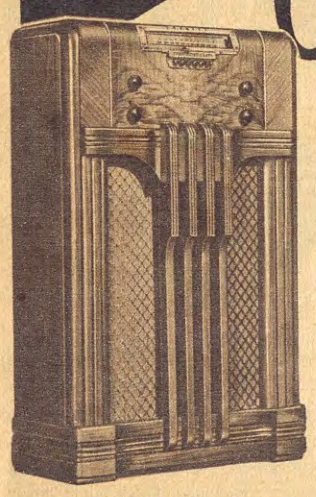
Consoles,
Table Models, Personal Radios
and Travel-type Portables

A RADIO SHOW IN ITSELF!

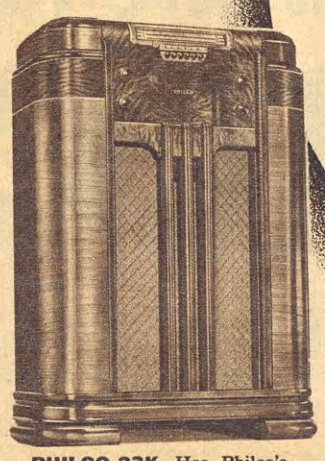
Before you buy any radio see Philco's amazing line of 1940 models! Any radio you might buy has some of the benefits of Philco engineering . . . BUY A PHILCO AND ENJOY THEM ALL! No matter how much you want to spend or what your radio need . . . Philco has a model just for you! Visit our store! Compare Philco's prices and big value. You'll be surprised—and will want to tell all your friends how much further radio dollars go on a new Philco!

and remember—**PHILCO offers**
A Complete Line of New, Money-Saving
BATTERY-OPERATED RADIOS

ASK US!



PHILCO 18F An unusual Philco value in a classic cabinet. 6 electric push-buttons and other features. Receives Domestic and Foreign Broadcasts.

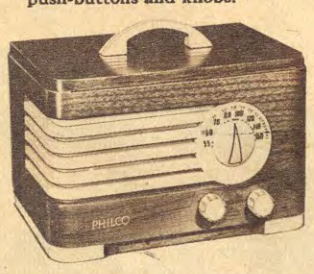


PHILCO 23K Has Philco's far-advanced feature—Built-in Super Aerial *System*. No installation, no connecting wires. 6 electric push-buttons. Gets Domestic and Foreign Broadcasts.

PHILCO 26T Only 9⅛" wide, 5¾" high, yet you will be amazed at its true Philco tone and beautiful walnut cabinet. Attached aerial. Ideal as a second set.

PHILCO 24T A personal radio with Built-in Loop eliminating aerial and ground. Convenient carrying handle. Attractive brown plastic cabinet with contrasting ivory push-buttons and knobs.

PHILCO 12T An AC-DC Superheterodyne with built-in loop aerial. Gives "plug-in and play" convenience. Beautiful two-tone cabinet of brown and amber plastic with handle for convenience.



PHILCO 27T The smartest table model we've seen. AC-DC with Built-in Loop aerial. Striking combination walnut cabinet accented with ivory plastic.

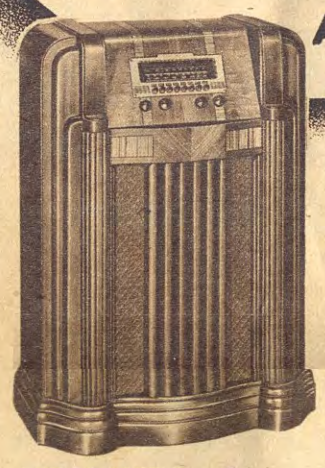
PHILCO 16T Built-in Super Aerial *System*. 6 electric push-buttons. Domestic and Foreign short-wave reception.

PHILCO 15T Same smart cabinet as above. Same features except push-button tuning. Just plug-in anywhere and play.

PHILCO 17T The finest Philco table model ever offered. Built-in Super Aerial *System* eliminates need of aerial or ground even for Foreign reception. 8 electric push-buttons.

PHILCO 403T Another Philco leader in the Portable Radio field. Smartly designed aeroplane luggage-type case. Operates at low cost.

PHILCO 402T Imagine receiving Foreign short-wave broadcasts direct with a Portable Radio. It's possible with this Philco Prince of Portables! A beauty!



PHILCO 22XF Beautiful console. Built-in Super Aerial *System*. 8 electric push-buttons and many other features. Receives Domestic and Foreign broadcasts.

PHILCO 25T Powerful AC-DC table model. Costly R.F. Stage and other features including attached aerial.

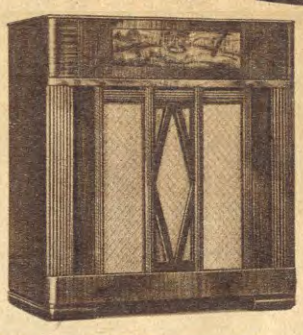
PHILCO 14T Same fine walnut cabinet as 25T. AC-DC Superheterodyne that gets Domestic and *Foreign short-wave* broadcasts. A real buy!

PHILCO 401T Light - weight Philco Portable. Half the size but all the performance. Take it with you . . . it plays anywhere.

PHILCO 404P Here's the ideal combination — Portable Philco Radio and Phonograph. Enjoy not only radio entertainment but also recorded music!

(At right)
PHILCO 19XF Philco's Best Seller for 1940! "Plug-in and play" convenience provided by Philco's Built-in Super Aerial *System!* 8 electric push-buttons, unique design. Foreign reception.

PHILCO 21XX De Luxe Style Leader! Built-in Super Aerial *System*. 8 electric push-buttons. Cabinet of highly figured walnut. Super power!

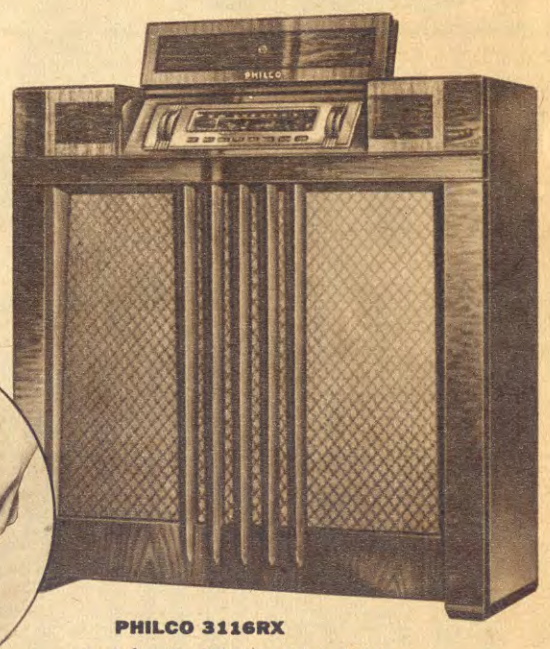


PHILCO 701 Automatic Philco Radio-Phonograph Combination. Built-in Super Aerial *System*—no aerial or ground connections needed. Simply plug-in and play. Automatic record changer provides an hour of continuous recorded entertainment.

Buy Canadian—Your 1940 Philco is MADE IN CANADA!

Let us demonstrate PHILCO *Wireless Remote Control!*

PHILCO 3116RX Only Philco offers this greatest of all radio inventions! You can tune favourite programmes from any room in your home without wires or connections between the handy Control Unit and the beautiful 3116RX radio receiver. Philco's finest . . . the ultimate in radio convenience!



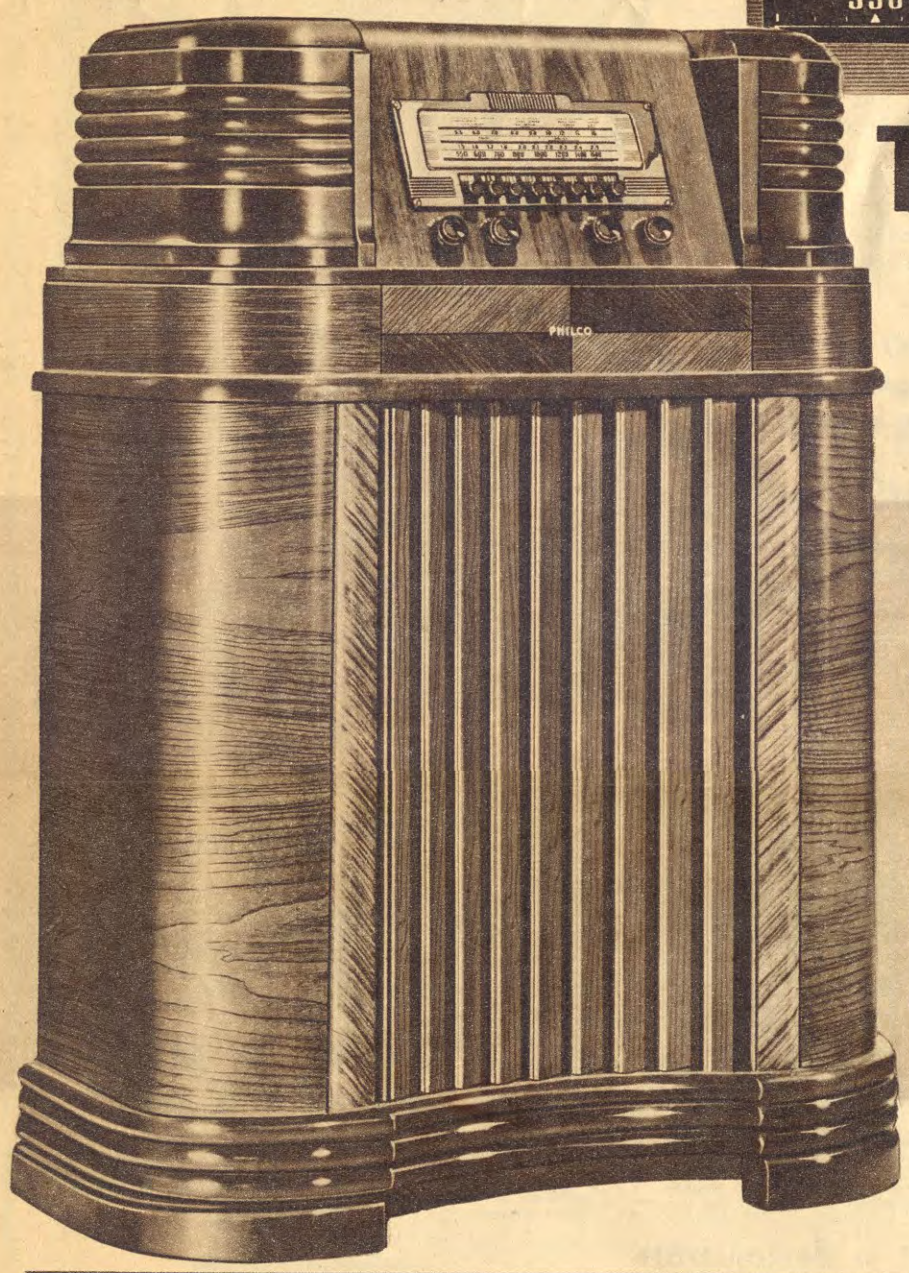
PHILCO 3116RX
In circle—**The Wireless Control Unit**

We Offer a Liberal Trade-in Allowance For Your Present Radio—

EASIER PAYMENT TERMS

Hear the NEWS from Europe DIRECT by Short-Wave!

The Philco Short-Wave Dial shows you with clear markings just where to tune for the News Reports from Europe!



Tune in with the New 1940 PHILCO

The Best Seller of Radio for 1940!

PHILCO 19XF. A sensational value in tone, performance and rich cabinet beauty. Has the new Philco Built-in Super Aerial *System* . . . place the radio anywhere, plug in and play. Gets regular broadcasts and powerful Domestic and Foreign short-wave reception. Electric push-button tuning. A large impressive cabinet of richly figured Walnut in contrasting grains. An achievement of value-giving at its price!

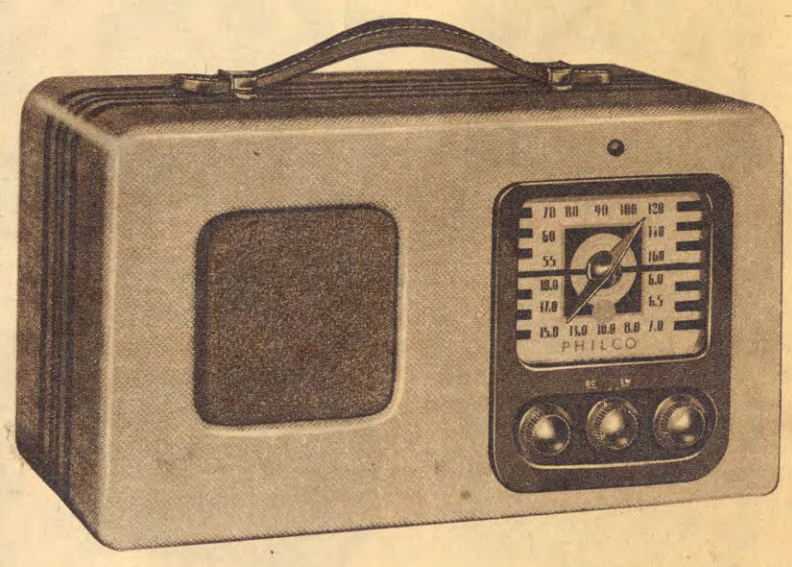
Liberal Trade-in Allowance for Your Old Radio. Small Down Payment; Balance on Easy Terms!

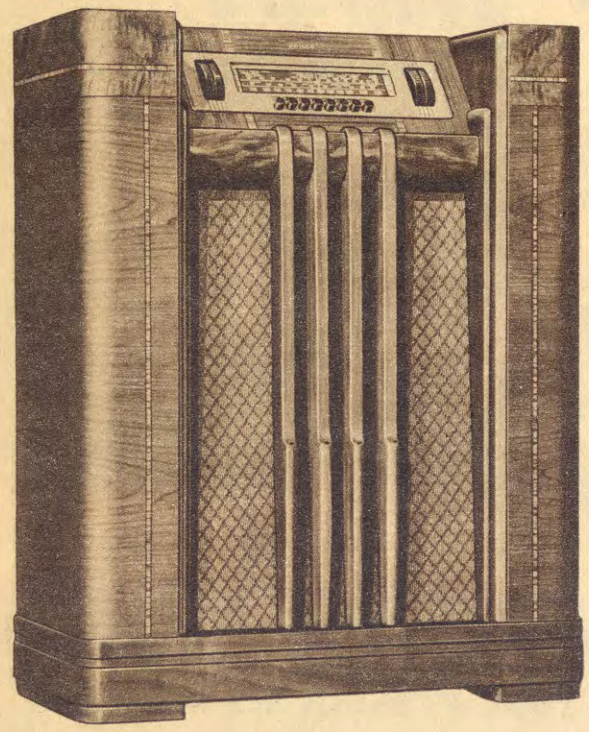
KEEP ABREAST, be informed, the air is vibrating with history in the making! Today, more than ever, your radio is a vital part of your home. More than ever, now, it should be a new 1940 *Domestic and Foreign* Philco with the latest improvements of modern radio science. Not only does it bring you the up-to-the-minute reports of the great news-gathering services, but Philco's newest developments have *vastly improved* your opportunity to hear and enjoy short-wave broadcasts direct from the capitals of Europe.

Surely now is the time to trade in your present set for an up-to-date, efficient radio.

Only Philco gives you ALL 3

1. ***No outside aerial or ground wires.*** Just plug in and play.
2. ***Purer, clearer tone;*** greater freedom from power-line noises.
3. ***Super-Power;*** even foreign short-wave reception without an outside aerial. All this is yours through the *Built-in Super Aerial System,* an *exclusive* feature of the 1940 Philco!





KEEP POSTED *BY SHORT-WAVE*

You're closer to the news when you hear it every day by short-wave, direct from Europe's capitals. Listen in . . . keep informed. A 1940 Philco makes foreign reception more practical than ever before!

PHILCO 21XX

Glorious tone and thrilling performance . . . a quality radio housed in a cabinet of exquisite beauty. Powerful Domestic and Foreign reception, giving you extra efficiency for tuning in short-wave news reports. Has Built-in Super Aerial System, Electric Push-Button Tuning, and many other quality features.

WHEREVER YOU GO—

Tune in the news by Short-Wave!

PHILCO 402T. The finest performing, self-powered portable radio ever produced. Has Built-in Super Aerial *System* including powerful R.F. Stage for extra power and amplification. Gets not only standard broadcasts from vast distances but also amazing performance on Domestic and Foreign short-wave reception. Exclusive built-in *Twin*-Loop Aerials and special low-drain circuit gives *extra* long battery life. Handsome case covered in attractive aeroplane cloth. Come in . . . See it . . . Try it!

LIBERAL TRADE-IN ALLOWANCE — EASIER PAYMENT TERMS

Copyrighted (1939) by Philco

Printed in Canada